

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 24 NOV 2005

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Applicant's or agent's file reference 35707PC01	FOR FURTHER ACTION	
	See Form PCT/IPEA/416	
International application No. PCT/DK2004/000273	International filing date (day/month/year) 22.04.2004	Priority date (day/month/year) 15.08.2003
International Patent Classification (IPC) or national classification and IPC G09F19/18, G09F13/08, G03B21/12		
Applicant DELFIN PRODUKTION A/S et al.		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 5 sheets, as follows:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the opinion</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>

Date of submission of the demand 29.11.2004	Date of completion of this report 28.11.2005
Name and mailing address of the international preliminary examining authority: European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Pantoja Conde, A Telephone No. +31 70 340-3907



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/DK2004/000273

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

**Description, Pages**

2-5 as originally filed  
1, 1a received on 29.11.2004 with letter of 24.11.2004

**Claims, Numbers**

1-22 received on 29.11.2004 with letter of 24.11.2004

**Drawings, Sheets**

1-9 as originally filed

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3.  The amendments have resulted in the cancellation of:
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/DK2004/000273

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-22
	No: Claims	
Inventive step (IS)	Yes: Claims	1-22
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-22
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**Re Item V**

**Reasoned Statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such Statement**

1. Reference is made to the following document:

D1: PATENT ABSTRACTS OF JAPAN vol. 0173, no. 23 (P-1559), 18 June 1993 (1993-06-18) & JP 05 035191 A (SONY CORP), 12 February 1993 (1993-02-12)

2. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and shows (the references in parentheses applying to this document):

A method of advertising or promoting, said method comprising the steps of; projecting a light pattern (10a) comprising one or more illuminated areas from a projector onto a screen (10), said light pattern defining a message or announcement area (see abstract and fig. 2, 3).

The subject-matter of claim 1 differs from this known method of advertising in that the method further comprises the steps of projecting still/or motion pictures from a projector onto said screen into said one or more illuminated areas, wherein outlines of said one or more illuminated areas correspond to the outlines of the screen.

The subject-matter of **claim 1** is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as implementing a displaying method that enhances and improves the visibility of the display.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

There is no hint in the available prior art that would prompt the person skilled in the art to modify the displaying method of document D1 such that it comprises the distinguishing feature, the inclusion of the illuminated areas surrounding the still or motion pictures and overlapping with the screen, ensures that the message is clearly visible all the time by

increasing the sharpness of outlines of the announcement area. Another effect associated with providing the screen with a shape corresponding to the message or announcement area, is that the message seems to be floating, due to the fact that the viewer can see thorough openings or concave parts of the announcement area. Document D1 (see abstract and fig. 2,3) discloses a light sensitive window which turns translucent in an illuminated area when an image is projected onto the window, the outlines of the screen don't correspond with the outlines of the message. US3627926 (column 1, line 48 - column 2, line 8; figs. 1 - 10) discloses a projecting system using opaque masks in front of the screen where images are projected that block part of the light coming from the projector.

3. The independent apparatus claim 11 corresponds in subject matter to that of the method of claim 1 of the application. The subject matter of this claim is therefore also new for the reasons stated above.
4. Claims 2 - 10 are dependent on claim 1 and as such also meets the requirements of the PCT with respect to novelty and inventive step.
5. Claims 12 - 22 are dependent on claim 11 and as such also meets the requirements of the PCT with respect to novelty and inventive step.

## A METHOD AND AN ARRANGEMENT FOR ADVERTISING OR PROMOTING

Systems for projection of pictures, movies or graphics are disclosed in the prior art. JP 05035191 discloses a light sensitive window which turns translucent in an illuminated area 5 when an image is projected onto the window. US 3,627,926 disclose an arrangement for generating a changing pattern of coloured designs by having opaque, coloured sheets in front of a screen onto which moving images are projected. WO 93/07605, WO 89/11235, and US 4,739,567 describe other ways to project still or moving pictures.

10 The present invention relates to a method of advertisement or promotion. More specifically, the invention relates to projection of pictures into illuminated areas, which may, for example, define a logo or another promotional image, whereby a viewer will see both the illuminated logo and projected pictures, preferably motion pictures inside the logo (video logo).

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This is obtained by the method of advertising or promoting according to the invention and comprising:

- projecting a light pattern comprising one or more illuminated areas onto a visible surface or screen, said light pattern defining a message or announcement area, and
- 20 - projecting still or motion pictures into said illuminated area(s).

The visible surface or screen could, for example, be defined by openings in one or more plates and/or be one or more plate(s) arranged in front of a projector. Thus, the screen could be defined by openings cut in a plate made of e.g. plastic, wood, aluminium or steel.

25 Alternatively, and presently preferred, the surface or screen may be composed by glass or plastic material, in particular an acrylic material. The material may be transparent or at least translucent.

In order to deflect and/or transmit the light a layer of image forming material, such as 30 translucent material, may be placed in front of the projector and before the visible surface or screen and which "catches" the light so that the viewer can see the projected light and pictures. Thus, a translucent material, such as a frost filter film may be provided between the projector and the screen onto which the light pattern and pictures are projected. The projected light and pictures may then be deflected and/or transmitted by said film in order 35 to present visible light and pictures to a viewer positioned at and spaced from the side of the screen being opposite to the projector (also called "back projection"). The frost material may comprise a separate plate or plates of material positioned between the projector and screen, or the frost material may be provided on a side of the plate or the material of the plate may be translucent itself. In case the screen comprises openings in a

1A

plate, as mentioned above, translucent material may be placed at least behind said openings, or if the screen comprises one or more plates (e.g. defining a logo), at least the backside of said plates may be translucent. In general, its a matter of providing a layer of non-transparent but translucent material that "catches" the light, also called a "diffusion screen".

## CLAIMS

1. A method of advertising or promoting, said method comprising;

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- projecting a light pattern comprising one or more illuminated areas from a projector (1) onto a screen (2,3), said light pattern defining a message or announcement area, and
- projecting still and/or motion pictures (5) from a projector (1) onto said screen into

10 said one or more illuminated areas,

wherein outlines of said one or more illuminated areas correspond to outlines of the screen.

15 2. A method according to claim 1, wherein the illuminated areas and/or the screen define a logo.

3. A method according to any of claims 1-2, wherein the projected light pattern is provided by editing a digital image defining said areas to be illuminated in order to provide a mask,

20 the method comprising the following image processing steps of:

- darkening the part of the image surrounding said areas,
- cleaning the colours from within said areas, and
- drawing up the contours of said areas in the picture with a coloured non-black line.

25 4. A method according to claim 3, wherein the image processing is performed in an image-editing program on a computer.

5. A method according to claim 3, further comprising the step of editing captured still or motion pictures by use of said mask in order to have the still and/or motion pictures projected within said non-black line.

30 6. A method according to claim 5, wherein the editing of the captured still or motion picture is performed in a video-editing program.

35 7. A method according to any of claims 3-6, wherein the step of editing the image comprises using an alpha key.

8. A method according to any of claims 3-7, wherein the step of darkening comprises providing the colour type "black level 0" on the part surrounding said areas.

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9. A method according to any of the preceding claims, wherein different still and/or motion pictures are shown in different illuminated areas.

10. A method according to any of the preceding claims, wherein the motion pictures show objects and/or living beings.

11. An advertisement or promotion arrangement, said arrangement comprising:

5 - means (1) for projecting a light pattern comprising one or more illuminated areas defining a message or announcement area,  
- a screen (2, 3) onto which said light pattern is projected,  
- means (1) for projecting still or motion pictures (5) into said one or more illuminated areas, and  
10 - means for editing a digital image to define said one or more illuminated areas so that outlines of the one or more illuminated areas correspond to outlines of the screen.

12. An arrangement according to claim 11, wherein the means for projecting comprises one or more projectors and/or video projectors.

15 13. An arrangement according to claim 11, wherein the screen is made of plastic, wood, aluminium, steel or acrylic material.

14. An arrangement according to any of claims 11-13, wherein the screen is translucent.

20 15. An arrangement according to claim 13, wherein the acrylic material comprises a frosted side onto which the light pattern and still and/or motion pictures are projected.

16. An arrangement according to any of claims 11-15, wherein the one or more illuminated 25 areas and/or screen define a logo.

17. An arrangement according to any of claims 11-16, wherein said means for editing a digital image are adapted to provide a mask by:

30 - darkening the part of the image surrounding said one or more illuminated areas,  
- cleaning the colours from within said one or more illuminated areas, and  
- drawing up the contours of said one or more illuminated areas in the picture with a coloured non-black line.

18. An arrangement according to claim 17, further comprising means for editing captured 35 still or motion pictures by use of said mask in order to have the still and/or motion pictures projected within said non-black line defining the one or more illuminated areas.

19. An arrangement according to any of claims 17-18, wherein the digital image is edited by use of an alpha key.

40 20. An arrangement according to any of claims 17-19, wherein the colour type on the part surrounding the areas is "black level 0" after darkening.

21. An arrangement according any of claims 11-20, wherein the screen comprises one or more adjacent screens.

22. An arrangement according to any of claims 11-21 used for carrying out the method  
5 according to any of claims 1-10.